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ABSTRACT

Regular and special education teachers were compared to determine the extent of stress and burnout within these groups, environmental factors that were involved, and teachers' and administrators' views on feasible ways to reduce stress. A sample of regular and special education teachers in Utah (n=606) responded to 3 survey instruments: (1) the Maslach Burnout Inventory (MBI); (2) the Stress Profile for Teachers; and (3) a demographic and job-related questionnaire. Analyses were conducted to compare responses and to assess the relationship between the demographic and job-related characteristics of the sample and responses to the instrument. Findings of this study indicated: (1) No difference was found in level of burnout between regular and special education teachers; (2) Both regular and special education teachers scored in the moderate ranges of stress and burnout in the measures used; (3) Only 3.3 percent of the sample were in the high burnout category of the MBI; (4) None of the demographic and job-related variables were found to be related to stress in regular and special education teachers as a whole; and (5) Teachers and administrators did not perceive the same variables as being helpful in reducing stress. Nine tables of study data are included. (JD)

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On-the-Job Stress and Burnout: Contributing Factors and Environmental Alternatives in Educational Settings

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The term "stress" elicits many misconceptions in the general populace. Some people think that stress is bad for us and should be avoided at all costs. Others view all negative experiences as the culprit of the stressed condition. The concept of burnout is perceived as the ultimate result of stress in which the individual experiences exhaustion; may be unable to continue in his/her present work situation and leave; or may become cynical, distant, and uncaring. Although there are a large number of popular books and articles available on stress and burnout, few of these publications are based on empirical evidence.

In the research literature, stress and burnout have been identified in industry (Indik, Seashore, & Slesinger, 1964), business (Hamner & Tosi, 1974), and the helping professions (Maslach & Jackson, 1981). Recently, this topic has received considerable attention in education. When the concept of stress is related to teaching, stress is viewed as "resulting from aspects of the teacher's job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being . . . ." (Kyriacou & Sutcliffe, 1978, p. 2). Job burnout in teachers has been described by Shaw, Bensky, and Dickson (1981) as an overload of unclear, discrepant, and/or unmanageable school system demands. A situation is created whereby the teacher cannot cope or adjust to the situation or stressors.

It has been suggested that special educators have even more potential for stress and burnout because of their multifaceted roles with parents, support personnel. and children experiencing learning problems (Weiskopf, 1980). However, little evidence exists to support this hypothesis (Meadow, 1981). Sampling biases, low rates of return, and the use of unreliable measures have plagued the few attempts which have been made to assess

levels of burnout among special educators (e.g., Meadow, 1981; Olson & Matusky, 1982; Schwab & Iwanicki, 1982).

Few studies to date have identified factors demonstrating a strong relationship to on-the-job stress and burnout in teachers and, particularly, special education teachers (Bensky, Shaw, Gouse, Dixon, & Beane, 1980; Needle, Griffin, & Svendsen, 1981; Pettegrew & Wolf, 1982; Schwab & Iwanicki, 1982; Tosi & Tosi, 1970). Likewise, no systematic evidence exists as to teachers' perceptions of environmental factors which would reduce stress and burnout nor of administrators' and supervisors' perceptions as to whether these factors are amenable to change within the educational setting. The paucity of research and the methodological problems existing in the literature underscore the need for such a systematic analysis.

REVIEW OF THE LITERATURE

A brief summary will be presented of research which has identified factors related to stress and burnout and the particular groups of workers examined.

Stress and burnout studies tend to fall into four groups: non-teachers, teachers, special education teachers, and regular and special education teachers. Table 1 provides a summary of studies within each group. As can be seen, half (n = 7) of the studies reported the response rates for each of the samples. For those studies reporting response rates, only three of the studies had response rates above 50%. Sampling methods reported in the third column varied considerably. Only four of the studies used random sampling procedures. All studies used some type of paper and pencil questionnaire. Some of the questionnaires were standardized. Some

Table 1

Summary of Empirical Research on Stress and Burnout

Non-Teachers

Author/Year	Sample	Method of Selection	Measure(s)	Outcomes
Hamner & Tosi, 1974	High Level Managers (N = 61)	Convenience	Composite questionnaire with items from Rizzo, House, & Lirtzman (1970) and Vroom (1963)	Job satisfaction and level of participation r = .32 Role ambiguity and level of perceived threat and anxiety r = .33
Armstrong, 1981	Child Abuse Workers and Ex-Workers (N = 162)	Purposive (97% response)	Researcher developed questionnaire and interview, examination of records.	Management process characteristics rated most frequently as stressful: 1) Inadequate leadership (differentiated workers from ex-workers) 2) Inadequate communication 3) Inadequate job autonomy 4) Inadequate supervision
Maslach & Jackson, 1981a, 1981b	Mental health workers, police officers, physicians, nurses, social service workers	Not reported	Maslach Burnout Inventory (1981a), questionnaire, Job Diagnostic Survey (JDS) (Hackman & Oldham, 1974)	EE[a] r / DP[b] r / PA[c] r Mental Health Workers (N = 40) (ratings by co-workers) Physically fatigued .42 / .55 Emotionally drained by job / .56 Complaints about clients / .32 Social Service and Mental Health Workers (N = 91) (JDS) Feedback from job / -.44 / .38 Knowledge of results -.31 / -.31 Meaningfulness of work / -.32 Nurses, Social Service Workers, & Mental Health Workers (N = 180) Growth satisfaction (JDS) / -.47 / .41 Co-worker satisfaction with workers (ratings) / -.41 / .40 Police Officers (N = 142) (ratings by spouse) Upset and angry .34 Sees children as emotionally distant / .32 Physicians (N = 43) Amount of direct contact with patients .31

[a]Emotional Exhaustion.

[b]Depersonalization.

[c]Personal Accomplishment.

Table 1 (cont'd)

Teachers

Author/Year	Sample	Method of Selection	Measure(s)	Outcomes
Manera & Wright, 1980	Teachers and Administrators (N = 91)	Conver nce	Researcher developed Q-sort task	Rank order of stressful events: 1) Time management 2) Individualized instruction 3) Judging people (e.g., student progress) 4) Professional growth 5) Personnel problems (e.g., in relation to interdisciplinary teaching, mainstreaming and special classes)
Young, 1980	Teachers (N = 747)	Purposive (50% response rate)	Modified Chicago Teaching Events Inventory	Rank order of stressful events (% of teachers reporting event) 1) Involuntarily transferred (5%) 2) Notification of unsatisfactory performance (7%) 3) Colleague assaulted in school (11%) 4) Managing disruptive children (75%) 5) Disagreement with supervisor (20%)
Tosi & Tosi, 1970	Elementary and secondary teachers (N = 68)	Convenience	Composite questionnaire with items from Vroom (1963) & Rizzo & House (1968)	Role conflict and job satisfaction r = -.48
Schwab & Iwanicki, 1982	Massachusetts teachers (N = 469)	Random selection from MTA membership list (64% response rate)	MBI (Maslach & Jackson, 1978), Teacher Stress Survey (researcher developed) and Role Questionnaire (Rizzo, House, & Lirtzman, 1970)	Role conflict a) MBI: Emotional Exhaustion r = .44 Depersonalization r = .30 Emotional Exhaustion - Set of background variables, role conflict and role ambiguity r = .21 b) Low levels of stress obtained; conclusions not supported by data
Needle, Griffin, & Svendsen, 1981	Minnesota teachers (N = 937)	Random (45% response rate)	Composite questionnaire with items from Quinn & Strain (1977), House, Wells, & McMichael (1979), Clark (1978), and Kyriacou & Sutcliff (1978)	r a) High discrepancy teachers* General well-being and somatic symptoms -.67 b) Low discrepancy teachers Satisfaction with job and general well-being .37 Relaxation .35 c) Specific problems confronting teachers and general well-being -.37 Somatic symptoms .32 Satisfaction with job -.37

Table 1 (cont'd)

	Author/Year	Sample	Method of Selection	Measure(s)	Outcomes
Teachers	Pettegrew & Wolf, 1982	High and low stress junior and senior high school teachers (N = 264)	Purposive (60% response rate)	Teacher Stress, Pettegrew & Wolf (1980)	School stress and role-related factors — Eta^2 - Job satisfaction .47 - Role conflict .46 - Role overload .33 - Role ambiguity .23 - Nonparticipation .20 - Management style .24 Task-related factors - Student discipline .27 - Participation beyond normal working hours .25 Other Factors - Illness symptoms .22 - Life satisfaction .21
Special Education Teachers	Olson & Matusky, 1982	Specific Learning Disability Teachers (N = 173)	Convenience	Researcher developed and field tested questionnaire	Rank order of stressful events: 1) Excessive paperwork (educational system factor) 2) Inadequate salary (personal life factor) 3) Discipline of students (classroom factor) 4) Inadequate planning time (educational system factor) 5) Student attitudes (classroom factor) 6) Pupil-teacher ratio (classroom factor)
	Zabel & Zabel, 1981	Learning disability, educable mentally retarded, trainable mentally retarded, emotionally disturbed, gifted. Multiply & severely handicapped, hearing impaired, & visually impaired (N = 601)	Random Convenience (79% response rate)	Maslach Burnout Inventory (1981a)	Low levels of burnout for all groups; no differences found for level of teaching (preschool to high school), model of service delivery or type of handicapping condition. No relationship found between demographic variables and subscales of MBI ($r = -.14$ to $.27$). Authors' conclusions not supported by data.

Table 1 (cont'd)

Regular and Special Education Teachers

Author/Year	Sample	Method of Selection	Measure(s)	Outcomes
Bensky, Shaw, Gouse, Bates, Dixon, & Beane, 1980	Regular and special education teachers (N = 114)	Convenience	Researcher developed questionnaire	1) Self-contained special education teachers experienced less stress than resource room and regular teachers 2) Rank order of stressful events (top 5): Self-Contained Class Special Education Teachers 1. Pupil load 2. Teaching (preparation and implementation) 3. Job-related work after hours 4. Interaction with parents 5. Parent conferences Resource Room Special Education Teachers 1. Diagnosis and assessment 2. Pupil load 3. Teaching 4. Evaluation by supervisors 5. Job-related work after hours Regular Education Teachers 1. Diagnosis and assessment 2. Interaction with parents 3. Job-related work after hours 4. Parent conferences 5. Teaching 3) Stress and clear role expectations $r = -.40$ discrepancies of role expectations $r = .35$ $R^2 = .19$
D'Arienzo, Morocco, & Krajewski, 1982	Regular and special education teachers (N = 691)	Random (52% response rate)	Teacher Occupational Stress Factor Questionnaire (Clark, 1980)	1) Five factors identified from questionnaire: a) Financial Security, Working with Students and Task Overload were rated as "considerably stressful" b) Administrative Support and Relationship with Teachers were rated as "Somewhat Stressful" 2) Regression analyses using eight variables (obsessive-compulsive ideation, teacher belief systems, marital status, sex of principal, years teaching experience, special education teacher, type of school and school setting). None of the combination of variables contributed more than 9% of the variation in any one of the five factors. 3) Only "working with students" differentiated regular (considerably stressful rating) and special education teachers (somewhat stressful rating).
Meadow, 1981	Regular education teachers and deaf educators (teachers and administrators (N = 210)	Convenience	Maslach burnout inventory (1981a) and questionnaire	1) Both groups scored at the low burnout level. 2) No difference between groups. 3) No relationship between the demographic or job-related items and burnout. 4) Author's conclusions not supported by data.
Wilson, 1979, 1981	Regular and special education teachers (N = 405) (N = 151)	Not reported	Stress Profile for Teachers (Wilson, 1979)	1981: a) no difference between groups b) both groups scored in the moderate stress range c) Time Management subscale rated most frequently as contributing to stress d) Teacher/Teacher Relations and Employee/Administrator Relations rated most frequently as least stressful 1979: a) special education teachers scored 10 points higher than regular education teachers b) both groups scored in the moderate-stress range

were a compilation of items developed by the researchers while other questionnaires contained items selected from standardized questionnaires.

Upon examination of the last column in Table 1, it can be seen that few of the studies examined similar variables in relation to stress and burnout. For example, those studies that reported rank-ordered data investigated factors such as leadership, communication, pupil load, diagnosis and assessment, involuntary transfer, or managing disruptive children. The differences in the factors ranked as stressful appear to be the result of the varied measures used and the type of job-related data obtained rather than actual differences in the characteristics which presumably define stress and burnout.

Those studies reporting correlational data also demonstrate wide variability in the factors found to be related to stress. Only those variables which had correlation coefficients of $r = .30$ or above are included in the table. Role conflict, job satisfaction, and clear role expectations appear to be three factors which consistently demonstrated a moderate relationship to stress and burnout. However, each of the studies investigating these variables used different measures.

The Maslach Burnout Inventory (Maslach & Jackson, 1981a) was the most frequently used instrument ($N = 5$) in the studies examined. Comparison of the studies across workers reveal that some groups of workers experience low levels of burnout (Maslach & Jackson, 1981b; Meadow, 1981; Schwab & Iwanicki, 1982; Zabel & Zabel, 1981) while other workers were experiencing moderate levels of burnout (Maslach & Jackson, 1981a). Few of these studies have examined subgroups of individuals within a sample who were experiencing high levels of stress and burnout.

Of particular interest to this study are the studies which compared regular and special education teachers. Conflicting evidence exists as to

the level of measured stress and burnout and the differences between the two groups of teachers. For example, Bensky et al. (1980) and D'Arienzo et al. (1982) found that regular education teachers experienced higher levels of stress than special education teachers on certain measures, whereas Wilson (1979) reported special education teachers as experiencing higher levels of stress than regular education teachers; both groups experienced stress at moderate levels. Two other studies (Meadow, 1981; Wilson, 1981), however, found no differences between the two groups. Furthermore, Meadow (1981) found both groups to experience only low levels of stress while Wilson (1981) found both groups to experience moderate levels of stress.

To summarize, it appears that although stress and burnout are considered critical problems in the work environment, most research conducted has been unable to identify those key factors which would help to functionally operationalize definitions of stress and burnout. One of the major problems appears to be the diversity of measures used to assess stress and burnout, many of which have not been standardized. Those studies which employed standardized measures have obtained inconsistent results depending on the sample examined. Another problem has been that job-related characteristics have also varied in their relationship to stress and burnout. To date, the only factors which have consistently demonstrated a moderate relationship with stress have been role conflict, job satisfaction, and role expectations. However, each study investigating these factors have used different measures. And, finally, those studies which have examined regular and special education teachers have not found any clear differentiation between the two groups in perceived level of stress and burnout.

It was the intent of the present study to provide some consistency in the field by using standardized measures previously identified in the literature, namely, the MBI and the Stress Profile for Teachers. Regular and special education teachers were compared to determine: (a) the extent of stress and burnout within these two groups, (b) whether teacher and classroom setting characteristics were associated with various levels of stress and burnout, (c) what teachers identified as ways to reduce stress and burnout, and (d) which of these suggestions by teachers administrators and supervisors viewed as feasible within their educational settings.

PROCEDURES

Sample

A random sample of Utah's secondary and elementary schools was drawn from the 1981 Utah school directory. All special educators from each of the schools and an equal number of regular educators were selected for a total sample of 850. The regular educators were randomly selected by faculty box numbers within each school. One district (n = 100) chose not to participate, leaving the sample at 748. Six hundred eleven questionnaires were returned, 606 usable, resulting in an 81% return rate.

Instruments

The survey instruments consisted of: (1) the Maslach Burnout Inventory (MBI, Maslach & Jackson, 1981a), (2) the Stress Profile for Teachers (Wilson, 1979), and (3) a demographic and job-related questionnaire. The MBI has three subscales: Emotional Exhaustion (EE) which describes feelings of being emotionally overextended and exhausted by one's work, Depersonalization (DP) which describes an unfeeling or impersonal response toward students, and Personal Accomplishment (PA) which describes

feelings of competence and successful achievement in one's work. Each scale reports levels of burnout from low to high and is ranked for both frequency of feelings, ranging from "never" to "daily," and intensity, ranging from "very mild" (barely noticeable) to "major" (very strong). For both the EE and the DP subscales, higher mean scores correspond with a higher degree of experienced burnout, whereas for the PA subscale, lower mean scores correspond to a higher degree of burnout (Maslach & Jackson, 1981a, 1981b).

Internal consistency reliability coefficients ranging from .72 to .89 were obtained for both frequency and intensity on the three subscales using Cronbach's coefficient alpha. Coefficients from .60 to .82 were reported for test-retest reliability (Maslach & Jackson, 1981a).

The Stress Profile for Teachers examines levels of job-related stress in six areas: Student Behavior, Employer/Administrator Relations, Teacher/Teacher Relations, Parent/Teacher Relations, Time Management, and Intrapersonal Conflicts. Additionally, three separate categories allow for reporting Physical Symptoms of Stress, Psychological/Emotional Symptoms of Stress, and Stress Management Techniques (higher scores reflect less effective management techniques). Reliability of .68 was reported for the Stress Profile. The profile was normed on 405 teachers in six San Diego County school districts (Wilson, 1979).

The demographic characteristics in this study included age, sex, years teaching experience, type of classroom (regular or special education), and category of pupils. Job-related characteristics included pupil load, hours of direct contact with students, working after school, role clarity, breaks, physical fitness, and an open-ended question asking teachers to suggest ways to reduce stress in their jobs.

A second questionnaire was sent to the administrators of each school included in the study. It was developed from a rank ordering of the suggestions teachers made regarding the factors within their system which could be changed to reduce stress. The administrators were asked to rate each item as easily done, possible but somewhat difficult, impossible, or facilitation not appropriate for my role. One hundred forty-five of the 190 administrators returned the survey (76% return).

RESULTS AND DISCUSSION

Analyses were conducted to compare responses between regular and special education teachers, and to assess the relationship between the demographic and job-related characteristics of the sample and responses to the instruments. Multiple regression analyses were also conducted to determine which combinations of variables were most highly associated with the variance in stress and burnout. Finally, a comparison was made of those factors which teachers suggested would reduce stress, and administrators' ratings of the feasibility of implementing such changes in their schools. In this study, practical significance was critical to interpretation of the data due to the large sample size. All correlation coefficients above $r = .30$ were statistically significant.

Demographic and Job-Related Characteristics

Respondents were predominantly female (73%) with proportionately fewer male special education teachers than regular education teachers (Table 2). Sixty-one percent of the teachers were 40 years or younger. There was a larger number of teachers either with six years or less experience (39%) or more than 12 years experience (38). The sample was comprised of half regular (49.5%) and half special education teachers (50.5%). Special

Table 2

Demographic Data of Sample

		Total Sample N = 606	Regular Education Teachers n = 298	Special Education Teachers n = 307
Sex:	Male	27% (165)	34% (102)	20% (60)
	Female	73% (441)	66% (196)	80% (246)
Age:	21-30 years	32% (191)	28% (83)	35% (107)
	31-40 years	29% (175)	27% (79)	31% (95)
	41-50 years	20% (119)	24% (73)	15% (47)
	51-60 years	16% (97)	18% (53)	14% (43)
	60+ years	4% (23)	3% (10)	4% (13)
Years teaching:	1-3	21% (126)	18% (53)	24% (73)
	4-6	18% (108)	17% (50)	19% (57)
	7-9	13% (76)	10% (31)	15% (45)
	10-12	10% (63)	10% (31)	10% (31)
	12+	38% (233)	45% (133)	33% (100)
Type of students serviced:				
	Regular (nonhandicapped)		49.5% (298)	
	Special education			50.5% (307)
	Mentally handicapped			13% (40)
	Learning disabled (LD)			33% (99)
	Behaviorally/emotionally handicapped (BEH)			23% (69)
	BEH/LD			21% (65)
	Speech/language impaired			2% (7)
	Other			8% (24)

education teachers tended to work more with learning disabled children (LD) (33%), behaviorally/emotionally handicapped children (BEH) (23%), or a combination (BEH/LD) (21%).

Table 3 illustrates the job-related characteristics sampled. Regular teachers tended to have larger classes, but both groups had approximately the same amount of direct student contact. More regular teachers worked longer hours (four or more) after school on school-related tasks (71%) as compared to the special education teachers (52%). Special education teachers (55%) frequently had more time away from students than regular teachers (37%). Neither group differed in their perceptions of role clarity; however, more regular education teachers (83%) perceived their role to match the environment's expectations than special education teachers (60%). Lastly, there appeared to be little difference between the groups in the amount of time spent exercising.

Stress and Burnout Levels

There was virtually no difference in the level of burnout experienced by regular and special education teachers on the MBI. Both groups scored in the moderate range (Table 4). Examination of the ratings on the Stress Profile for Teachers (Table 5) likewise reveals that no overall differences were found between the two groups and that both groups scored in the moderate range on this measure. Scores on the Teacher/Teacher Relations and Employee/Administrator Relations subscales indicate that teachers did not perceive their colleagues or superiors as stressful. Although Utah teachers still scored in the moderate range on Stress Management techniques, this subscale ranked in the lower third. The ways teachers cope with stress may be a problem; however, it is less stressful for them than Time Management or Parent/Teacher Relations.

Table 3

Job-Related Data

	Regular Education Teachers n = 298	Special Education Teachers n = 307
Student load per day:		
<12	-	10% (32)
12-15	-	12% (36)
16-20	1% (3)	6% (18)
21-35	54% (160)	53% (162)
35+	49% (135)	19% (58)
Direct contact with students (hours):		
1-3	-	3% (10)
3-4	1% (4)	3% (8)
4-6	47% (138)	67% (204)
6+	52% (152)	27% (82)
Time working on school-related tasks after school hours:		
1-3	14% (42)	27% (83)
3-4	15% (43)	20% (61)
4-6	21% (61)	24% (73)
6+	50% (149)	28% (87)
Role clearly defined with set expectations:		
Yes	72% (210)	73% (220)
No	28% (81)	27% (83)
Others' perception of my role matched with my own perceptions		
Yes	83% (236)	60% (177)
No	17% (49)	40% (117)
Time spent away from students each day (minutes):		
None	5% (14)	5% (14)
<15	15% (45)	8% (25)
15-30	43% (127)	32% (98)
30-60	32% (94)	45% (136)
Over 60	5% (15)	10% (30)
Time engaged in physical exercise (days per week):		
None	12% (34)	12% (38)
1-2	35% (103)	33% (102)
3-5	37% (110)	38% (117)
6-7	16% (48)	16% (48)
Time engaged in physical exercise (minutes):		
None	14% (42)	16% (48)
5-20	45% (132)	42% (128)
20-30	22% (64)	20% (62)
30+	19% (56)	21% (65)

Table 4

Means and Standard Deviations on the
Maslach Burnout Inventory[1]
(Maslach & Jackson, 1981a)

	Regular Education Teachers		Special Education Teachers		Total	
	$\bar{X}$	(SD)	$\bar{X}$	(SD)	$\bar{X}$	(SD)
Frequency						
Emotional Exhaustion (EE)	22.4	(11.4)	21.7	(10.6)	22.0	(11.0)
Depersonalization (DP)	7.9	(6.1)	6.7	(5.4)	7.3	(5.7)
Personal Accomplishment (PA)	37.9	(6.9)	38.5	(7.1)	38.2	(7.0)
Intensity						
Emotional Exhaustion (EE)	28.1	(12.9)	27.5	(12.6)	27.8	(12.8)
Depersonalization (DP)	10.2	(7.8)	9.0	(7.4)	9.6	(7.6)
Personal Accomplishment (PA)	39.1	(7.2)	39.7	(7.6)	39.4	(7.4)

[1]Moderate Range: Frequency; EE, 18-29; DP, 6-11; PA, 34-39.
Intensity; EE, 26-39; DP, 7-14; PA, 37-43.

Table 5

Means and Standard Deviations on the
Stress Profile for Teachers
(Wilson, 1979)

	Regular Education Teachers		Special Education Teachers			
	$\bar{X}$	(SD)	$\bar{X}$	(SD)	Grand Mean	(SD)[1]
Time Management	12.6	(3.4)	11.5	(3.4)	12.0	(3.5)
Parent/Teacher Relations	11.4	(2.7)	12.4	(2.8)	11.9	(2.8)
Physical Symptoms of Stress	11.4	(3.4)	10.9	(3.2)	11.1	(3.3)
Intrapersonal Conflict	11.1	(3.0)	10.8	(2.7)	11.0	(2.8)
Student Behavior	10.8	(2.4)	11.0	(2.4)	10.9	(2.4)
Psychological/Emotional Symptoms of Stress	10.5	(3.3)	10.3	(3.0)	10.4	(3.2)
Stress Management Techniques	9.5	(3.0)	9.7	(3.2)	9.6	(3.1)
Teacher/Teacher Relations	7.1	(2.4)	8.4	(2.8)	7.8	(2.7)
Employee/Administrator Relations	6.6	(2.7)	6.7	(2.7)	6.7	(2.7)
Total	91.1	(19.4)	91.6	(18.1)	91.3	(18.7)

[1]Subtests ranked according to responses from total sample.

Those respondents who reported high levels of burnout were examined further. Maslach and Jackson (1981) define burnout as high scores on the Emotional Exhaustion and Depersonalization subscales and low scores on the Personal Accomplishment subscale. Only 3.3% (N = 20) of the sample fell within the Maslach and Jackson criteria. Of these respondents, 15 were regular education teachers and 5 special education teachers. The high level respondents tended to be the youngest teachers (n = 10) with 6 years or less experience (n = 11). They had 21-35 students in class (n = 11), four or more hours direct pupil contact (n = 20), 15-30 minutes break away from students (n = 10), and worked more than 6 hours per week after school on school related tasks (n = 13). Interestingly, these teachers exercised 5-20 minutes per day (n = 12) three to five days per week (n = 9). Most of the high level responders (n = 11) perceived their role as clearly defined; however, they did not perceive their principal's or peers' perception of their role as matching their perceptions (n = 13).

High MBI responders tended to score somewhat differently on the Stress Profile for Teachers (total $\underline{\bar{X}}$ = 107.0, $\underline{SD}$ = 15.2) than the total sample ($\underline{\bar{X}}$ = 91.3, $\underline{SD}$ = 18.7). For this group, the Parent/Teacher Relations subscale was ranked as more stressful which differed from the total sample which ranked Time Management problems as more stressful. Based on the MBI then, few teachers (3.3%) were experiencing high levels of burnout. Even though some characteristics were noted, this subgroup was small enough to preclude suggesting that any critical factors differentiated high burnout individuals.

On the Stress Profile for Teachers (Wilson, 1979), a higher percentage of individuals responded in the high stress category (19%, N = 115). There was also a much larger group in the moderate range (65%) than was observed

on the MBI ($\bar{X}$ = 35%). Of those individuals who responded in the high stress category, 52% were regular educators (n = 60) and 48% were special educators (n = 55). Only a few job-related items were responded to differently by the two groups. Although high stress regular and special education teachers did not vary in their responses to perceived role definition, more special education teachers than regular education teachers did not perceive a role match with others in the work situation. Forty-four percent of the regular education teachers who reported that they did not exercise experienced high levels of stress, whereas 40% of the special education teachers who reported exercising 20 minutes or less experienced high levels of stress. Proportional comparison of high stress responders to the total sample did not reveal any clear differences.

High responders on the Stress Profile for Teachers tended to score in the high burnout level on the Emotional Exhaustion subscale of the MBI. All other subscales were in the moderate range similar to the total sample. Finally, high stress responders were compared to the regular and special education teachers' responses of the total sample on the Stress Profile for Teachers. Time management problems were rated by both regular teachers and high stress regular teachers as the most stressful event. Special education teachers in the high stress group rated Parent/Teacher Relations as the most stressful event whereas the total sample of special education teachers rated Time Management.

Correlational Data on Stress and Burnout

Correlational analyses were conducted with all of the demographic and job-related variables, and the MBI and Stress Profile for Teachers by type of teacher.

MBI Scale. As can be seen in Table 6, Emotional Exhaustion had a low-moderate relationship to perceived lack of clear role definition and lack of role match with others and accounted for 20% or less of the variation for most teachers except for teachers of BEH children. Lack of role match with others was moderately associated with Emotional Exhaustion ($r = .54$) (accounting for 29% of the variance) and Depersonalization ($r = .40$) on the MBI for teachers of BEH children.

Other job-related factors found to be related to the subscales of the MBI for teachers of the mentally retarded included: (a) number of students in class and Emotional Exhaustion ($r = .50$), (b) number of days spent exercising and Emotional Exhaustion ($r = -.32$), and (c) number of days spent exercising and Depersonalization ($r = -.31$). None of the other correlations examined for any of the other variables and the MBI were above .30.

Stress Profile for Teachers. Perceived lack of clear role definition and lack of role match with others were the two factors to reveal demonstrable relationships with the many subscales of the Stress Profile for Teachers (Table 7). Those coefficients with asterisks were the only correlations in the moderate range accounting for 23% to 30% of the variance in the different measures of stress. Teachers of the mentally retarded (MR) and of the behaviorally handicapped (BEH) or combined BEH/LD were the only teachers in which measures of stress were related to role definition and role match with others. In the last column of Table 7, it will be noted that for teachers of MR children, the number of students in class was associated with both Physical Symptoms of Stress ($r = .44$) and Psychological Symptoms of Stress ($r = .48$). Number of students accounted for 23% of the variance in the Psychological Symptoms of Stress subscale.

Table 6

Correlation Coefficients of the Emotional Exhaustion Subscale of the MBI and Two Job Related Factors Analyzed by Type of Teacher

	Perceived lack of clear role definition	Perceived lack of role match with others
Total Sample	.31	.30
Regular Education Teachers	.30	-
Special Education Teachers	.32	.36
Teachers of MR Children	.37	.33
Teachers of LD Children	.33	-
Teachers of BEH Children	.35	.54*
Teachers of BEH/LD Children	-	.32

Table 7

Pearson Correlation Coefficients for Certain Job Related Variables and the Subscales of the Stress Profile for Teachers

	Lack of clear role definition				Lack of role match with others						No. of Students
	Teachers of MR	Teachers of BEH	Teachers of BEH/LD	All Special Education Teachers	Total Sample	All Special Education Teachers	Teachers of MR	Teachers of LD	Teachers of BEH	Teachers of BEH/LD	
Student Behavior											
Employee/Administrator Relations	.30		.30				.41*			.32	
Teacher/Teacher Relations					.34[a]	.33	.55*			.41*	-.35[c]
Time Management	.34		.44*								
Intrapersonal Conflict	.33	.33							.33		
Physical Symptoms of Stress		.38				.32		.35	.49*		.44[b]*
Psychological Symptoms of Stress		.30				.31			.39	.31	.48[b]*
Stress Management Techniques	.34	.33	.39	.33					.53*		
Total Stress Score	.34	.33	.37	.32	.31[a]	.37		.31	.48*	.30	

[a]Total sample.
[b]Teachers of MR.
[c]Teachers of BEH/LD.

Regression analyses were conducted for each of the subscales of the MBI and the Stress Profile for Teachers. Of particular interest in conducting the analyses was whether certain demographic and job-related variables were more relevant for different types of teachers. None of the regression analyses for the total group of teachers, regular education teachers, or special education teachers (using the demographic and job-related variables) accounted for more than 20% of the variation in any one subscale. Studies cited earlier also did not account for more than 20% of the variation in the variables examined. However, Table 8 illustrates those combinations of variables which contributed a large percent of the variation in the different subscales for three types of special education teachers: teachers of MR, BEH, and BEH/LD children. The combinations of variables in the regression equations contribute from 25% to 45% of the variation in different measures of stress and burnout. For instance, for teachers of the mentally retarded, a large number of children in class, lack of clear role definition, and little physical exercise contributed highly to the variance in Emotional Exhaustion. For teachers of BEH children, another combination of variables, lack of role match with others and more direct contact with students, contributed highly to the variance in Emotional Exhaustion. Although no particular variables appeared to account for stress in regular and special education teachers as a whole, it does appear that specific variables differentiated subgroups of special education teachers.

Feasibility of Reducing Stress Factors

Although many authors have suggested that environmental factors can increase stress, no data exist regarding whether those environmental factors are amenable to change by those in control (such as administrators,

Table 8

Stepwise Regression Analyses of the Subscales of the MBI and Stress Profile for Teachers

Variables in Regression Equation	Predictor Variable	R^2
Teachers of MR children		
Number of students + clear role definition + physical exercise (min/day)	Emotional Exhaustion	.45
Role match with others + working after school + direct contact with students + sex	Depersonalization	.42
Years teaching + sex + working after school + age	Time Management	.41
Number of students + physical exercise (days) + role match with others	Psychological Symptoms of stress	.43
Physical exercise (min/day) + years teaching + age	Stress Management Techniques	.33
Teachers of BEH children		
Role match with others + direct contact with students	Emotional Exhaustion	.38
Working after hours + time away from students + number of students	Time Management	.33
Role match with others + sex	Physical Symptoms of Stress	.31
Role match with others + working after school	Stress Management Techniques	.42
Role match with others + working after school	Total Score (Stress Profile for Teachers)	.32
Teachers of BEH/LD children		
Role match with others + number of students + age	Teacher/Teacher Relations	.31
Clear role definition + working after hours + physical exercise (days)	Time Management	.31
Clear role definition + physical exercise (days)	Stress Management Techniques	.29
Clear role definition + role match with others	Emotional Exhaustion	.25
Role match with others + clear role definition + age	Psychological Symptoms of Stress	.26
Clear role definition + role match with others	Total Score (Stress Profile for Teachers)	.25

principals, or supervisors). For example, teachers may perceive student load as stressful, but because of budgetary restrictions, legal policy, or some other factor, it would not be possible to reduce that source of stress. It may become a given of the job situation.

As part of this study, teachers were requested to make three suggestions which, if implemented, could reduce their stress in the work environment. No previous research has assessed whether those in control of the environment could feasibly implement these potential stress reduction strategies.

Table 9 lists those factors teachers suggested would reduce stress. Administrators were then asked to rate each of these items (easily done, possible but somewhat difficult, impossible, or facilitation not appropriate for my role). Responses were than ranked from most to least feasible to implement. "Smaller class loads" and "more preparation time" were suggested most frequently by teachers as being the most likely ways to reduce stress in the school environment, whereas administrators ranked the "smaller class loads" fourteenth and "more preparation time" approximately tenth. Conversely, the top items ranked by administrators as easily done (e.g., "positive feedback" and "more help and support from administration") were ranked by teachers last and eighth, respectively. The rankings by teachers and administrators were very dissimilar (Spearman rho = .07). Although the discrepancy between the two groups of educators was great, the impact of any changes made in the environment cannot be determined. That is, even though administrative support was not considered the most important factor in reducing stress, increased administrative support could possibly have significant impact on teachers' perceptions of the amount of stress in the school environment.

Table 9

Teachers' Suggestions of Factors Which Would Reduce Stress and Administrators' Ratings of Feasibility for Change

	Teachers	Administrators	(Mean Ratings)
Smaller class load	1	14	(2.9)**
More preparation time	2	10.5	(2.5)
Fewer preparations per day	3	10.5	(2.5)
Reduced paperwork (required by district, state, federal levels)	4	12	(2.6)
Facilitate increased parent support	5	5.5	(1.7)
Fewer out-of-classroom duties (less duties, more short breaks)	6	9	(2.3)
Establishment of school standards to help with discipline problems (administrative support, alternatives for disruptive students)	7	3	(1.5)
More help and support from administration (clearly defined policies, better communication, more direction)	8	2	(1.4)
More aides	9	13	(2.7)
Increased facilitation of cooperation from other teachers	10	5.5	(1.7)
More pay	11	16*	(3.3)
Pay for additional work	12	18.5*	(3.1)
More classroom materials	13	7.5	(2.1)
Fewer extracurricular activities which require faculty attendance	14	7.5	(2.1)
Staff fitness programs at school	15	4	(1.6)
More breaks during the year rather than all summer	16	17*	(3.2)
Four-day week	17	18.5*	(3.3)
Mental health days for teachers never ill or a few unrestricted leave days	18	15*	(3.0)
Positive feedback from administrators	19	1	(1.2)

*Mode for these items = 4.

**Ratings: 1 = easily done, 2 = possible but somewhat difficult, 3 = impossible, 4 = facilitation not appropriate for my role.

In summary, in this study two standardized measures were used to assess stress and burnout in regular and special education teachers. Comparisons were also made between teachers on various demographic and job-related variables. Finally, administrators were asked to rate those stress reduction factors suggested by teachers.

Even though not all of the variables identified in the literature were examined in this study, our results do address some of the issues and variables previously identified.

First, in this study no difference was found between regular and special education teachers. These results do not confirm the earlier findings that special education teachers experience more stress than regular education teachers.

Second, both regular and special education teachers scored in the moderate ranges of stress and burnout in the two measures used. Typically, low levels of stress and burnout have been assumed to be desirable in the work environment. Moderate levels of stress have been assumed to be harmful to workers. To date, research has not validated the optimal level of stress nor the necessary balance between "eustress" (positive stress) and "distress" (negative stress) (Selye, 1956).

Third, in this study, only 3.3% of the sample were in the high burnout category of the MBI. On the Stress Profile for Teachers, 19% of the sample were in the high stress category. With 190 schools in the sample, there would be approximately two teachers in each school who were experiencing high levels of burnout. The results from this study raises the question of whether we have made much ado about nothing. Although our data do not prove that we have, the question needs to be considered.

Fourth, none of the demographic and job-related variables were found to be related to stress and burnout in regular and special education teachers as a whole. Only when special education teachers were separated into "type of student taught" were certain factors identified as being correlated to stress and burnout. Those factors were perceived lack of role match with others, lack of clear role definition, and number of students taught. In the regression analyses, the results revealed that demographic and job-related variables were also only related to stress and burnout for specific types of special education teachers (e.g., mentally retarded, behaviorally handicapped, and combined behaviorally handicapped and learning disabled [see Table 8]). The variety of variables in the regression equations for the different measures as well as the type of teachers seriously restrict the generalizations that can be made.

Fifth, teachers and administrators do not perceive the same variables as being helpful in reducing stress and burnout. What teachers think is helpful, administrators consider unfeasible. Although the discrepancies were considerable, there has been no verification of the effect of changing certain environmental factors on perceived stress. The factors administrators did consider feasible would be an obvious point to start.

REFERENCES

Armstrong, K. L. How to avoid burnout: A study of the relationship between burnout and worker, organizations, and management characteristics in 11 child abuse and neglect project. Child Abuse and Neglect, 1979, 3, 145-149.

Bensky, J. M., Shaw, S. F., Gouse, A. S., Bates, H., Dixon, B., & Beane, W. E. Public Law 94-142 and stress: A problem for educators. Exceptional Children, 1980, 47(1), 24-29.

D'Arienzo, R. V., Moracco, J. C., Krajewski, R. j. Stress in teaching: A comparison of perceived occupational stress factors between special educators and regular classroom teachers. Washington, D. C.: University Press of America, 1982, 145.

Dixon, B., Shaw, S. F., & Bensky, J. M. Administrator's role in fostering mental health of special service personnel. Exceptional Children, 1980, 17(1), 30-36.

Hamner, W. C., & Tosi, H. L. Relationship of role conflict and role ambiguity to job involvement measures. Journal of Applied Psychology, 1974, 59(4), 497-499.

Kyriacou, C. Stress health and schoolteachers: A comparison with other professions. Cambridge Journal of Education, 1980, 10(3), 154-159.

Kyriacou, C., & Sutcliffe, J. A. A model of teacher stress. Educational Studies, 1978, 4, 1-6.

Manera, E. S., & Wright, R. E. Stress factors in teaching. Journal of the Association of Teacher Educators, Fall 1980, II(4), 51-56.

Maslach, C., & Jackson, S. E. The measurement of experienced burnout. Journal of Occupational Behavior, 1981a, 2, 99-113.

Maslach, C., & Jackson, S. E. Maslach Burnout Inventory. California: Consulting Psychologists Press, Inc., 1981b.

Meadow, K. P. Burnout in professionals working with deaf children. American Annals of the Deaf, 1981, February, 13-22.

Needle, R. H., Griffin, T., & Svendsen, R. Occupational stress: Coping and health problems of teachers. Journal of School Health, 1981, March, 175-181.

Olson, J., & Matusky, P. Causes of burnout in SLD teachers. Journal of Learning Disabilities, February 1982, 15(2), 97-99.

Pettegrew, L. S., & Wolf, G. E. Validating measures of teacher stress. American Educational Research Journal, 1982, 19(3), 373-396.

Rizzo, J. R., House, R. J., & Lirtzman, S. I. Role conflict and ambiguity in complex organizations. Administrative Science Quarterly, 1970, 15, 150-163.

Schwab, R. L., & Iwanicki, E. F. Perceived role conflict, role ambiguity, and teacher burnout. Educational Administration Quaterly, 1982, 18(1), 60-74.

Selye, H. The stress of life. New York: McGraw-Hill Book Co., 1956, 515.

Selye, H. Eustress. Psychology Today, March 1978, 62.

Tosi, H., & Tosi, D. Some correlates of role conflict and role ambiguity among public school teachers. Journal of Human Relations, 1970, 18, 1068-1075.

Vroom, V. Some personality determinants of the effects of participation. Englewood Cliffs, NJ: Prentice-Hall, 1963.

Weiskopf, P. E. Burnout among teachers of exceptional children. Exceptional Children, 1980, 47(1), 18-23.

Wilson, C. Stress profile for teachers. San Diego, Ca.: The Wright Group, 1979.

Young, T. Teacher stress: One school district's approach. The Journal of the Association of Teacher Educators, 1980, Fall, 11(4), 37-40.

Zabel, R. H., & Zabel, M. K. Factors involved in burnout among teachers of emotionally disturbed and other types of exceptional children. Manhattan, Kansas: Kansas State University, 1981.